

## **REMARKS**

Claims 1 – 16 are pending and under consideration in the above-identified application.

In the Office Action, Claims 1 – 16 were rejected.

In this Amendment, Claims 1, 2, 5 – 7, 12 and 15 – 16 are amended. No new matter has been introduced as a result of this Amendment.

Accordingly, Claims 1 – 16 remain at issue.

### **I. 35 U.S.C. § 103 Obviousness Rejection of Claims**

Claims 1-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishijima et al. (“*Nishijima*”) (U.S. Patent No. 6,263,151) in view of Ozue et al. (“*Ozue*”) (U.S. Publication No. 2004-0021982). Although Applicants respectfully traverse this rejection, to further prosecution, independent Claims 1, 2, 7 and 12 have been amended to clarify the invention and remove any ambiguities that may have been at the basis of this rejection.

Claim 1 is directed to a magnetic recording head for a helical scan type magnetic recording/reproducing apparatus. The magnetic recording head comprises a multi-gap recording head formed by laminating “n” recording heads and having “n” recording gaps, the “n” being an integer greater than 2, wherein, the “n” recording gaps are wider than a track pitch and partially overlap each other in a *cascading* pitched manner in a width direction of the recording head so as to record a pattern of juxtaposed tracks, and a gap for recording the last track among “n” recording gaps of the multi-gap recording head being wider than other gaps.

Thus, the claimed magnetic recording head has “n” laminated recording gaps that are wider than a track pitch and partially overlap each other in a cascading pitched manner in a width direction of the recording head so as to record a pattern of juxtaposed tracks. Moreover, a gap for recording the last track among “n” gaps of the multi-gap recording head has a wider gap than other gaps.

Referring to Applicants’ Figure 2 as an illustrative example, Applicants’ claimed invention comprises a multi-gap recording head 30 configured by laminating recording heads W1 to W4. Recording heads W2 to W4 have a core width CW equal to a track width TP augmented by  $\alpha 1$  so as to partially overlap by  $\alpha 1$  each other and the tracks formed by the recording heads W1 to W3. That is, the recording head W4 overlaps by  $\alpha 1$  recording head W2,

which in turn overlaps W3 by  $\alpha_1$ , as do W3 over W2 and W2 over W1. That is, recording heads partially overlap each other in a cascading pitched manner, starting with recording head W4 and ending with recording head W1. In addition, the recording head W1 has a core width equal to  $TP + \alpha_2$  so as to project by  $\alpha_2$  outward of its track pitch TP, with  $\alpha_2$  being greater than  $\alpha_1$ .

This is clearly unlike both *Nishijima* and *Ozue*. The Examiner asserts that *Nishijima* discloses that the “n” recording gaps partially overlap each other in a cascading pitched manner and points to heads 3 and 6 shown in FIG. 3 for support. However, upon further analysis of at least FIGs. 2, 3 and 4, recording heads 2 through 7, including heads 3 and 6, do partially overlap each other but not in a cascading pitched manner, as required by Claim 1. In fact, head 3 overlap completely head 6, rather than partially, as required by Claim 1.

Moreover, *Ozue* also fails to teach or suggest “n” recording gaps partially overlap each other in a cascading pitched manner. See FIGs. 2, 5 - 8, and 10 – 15, for example.

As such, the references *Nishijima* and *Ozue*, singly or in combination with each other, fail to teach or disclose fail to teach or suggest a magnetic recording head with “n” recording gaps that are wider than a track pitch and partially overlap each other in a cascading pitched manner along a width direction of the recording head so as to record a pattern of juxtaposed tracks, and a gap for recording the last track among “n” gaps of the multi-gap recording head has a wider gap than other gaps.

Accordingly, Claim 1 is patentable over *Nishijima* and *Ozue*, taken singly or in combination with each other, as are dependent Claims 3 – 5, and 6.

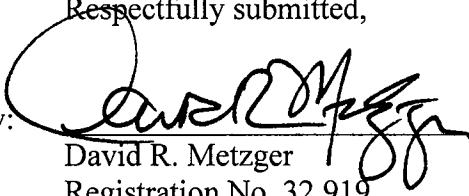
Independent Claims 2, 7, and 12 have been amended in a similar fashion as Claim 1. As such, these claims are also patentable over *Nishijima* and *Ozue*, as are their corresponding dependent claims for at least the same reasons.

Accordingly, Applicants respectfully request that these claim rejections be withdrawn.

**II. Conclusion**

In view of the above amendments and remarks, Applicant submits that Claims 1 – 16 are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

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